

# RF AMPLIFIER

## MODEL *TM7211*

Available as: TM7211, 4 Pin TO-8 (T4)  
 TN7211, 4 Pin Surface Mount (SM3)  
 FP7211, 4 Pin Flatpack (FP4)  
 BX7211, Connectorized Housing (H1)

### Features

- Low Noise Figure: 1.8 dB Typical
- High Output Power: +20 dBm Typical
- Operating Temp. -55 °C to +85 °C
- Environmental Screening Available

### Specifications

CHARACTERISTIC	TYPICAL Ta= 25 °C	MIN/MAX Ta = -55 °C to +85 °C
Frequency	10 - 200 MHz	30 - 200 MHz
Gain (dB)	8.5	7.5 Min.
Power @ 1 dB Comp. (dBm)	+20	+19 Min.
Reverse Isolation (dB)	-12	-11 Max.
VSWR In	<1.75:1	2.0:1 Max.
VSWR Out	<1.35:1	2.0:1 Max.
Noise Figure (dB)	1.8	3.0 Max.
Power Vdc	+15	+15
mA	30	33 Max.

Note: Care should always be taken to effectively ground the case of each unit.

### Typical Intermodulation Performance at 25 °C

Second Order Harmonic Intercept Point ..... +61 dBm (Typ.)  
 Second Order Two Tone Intercept Point ..... +55 dBm (Typ.)  
 Third Order Two Tone Intercept Point ..... +40 dBm (Typ.)

### Maximum Ratings

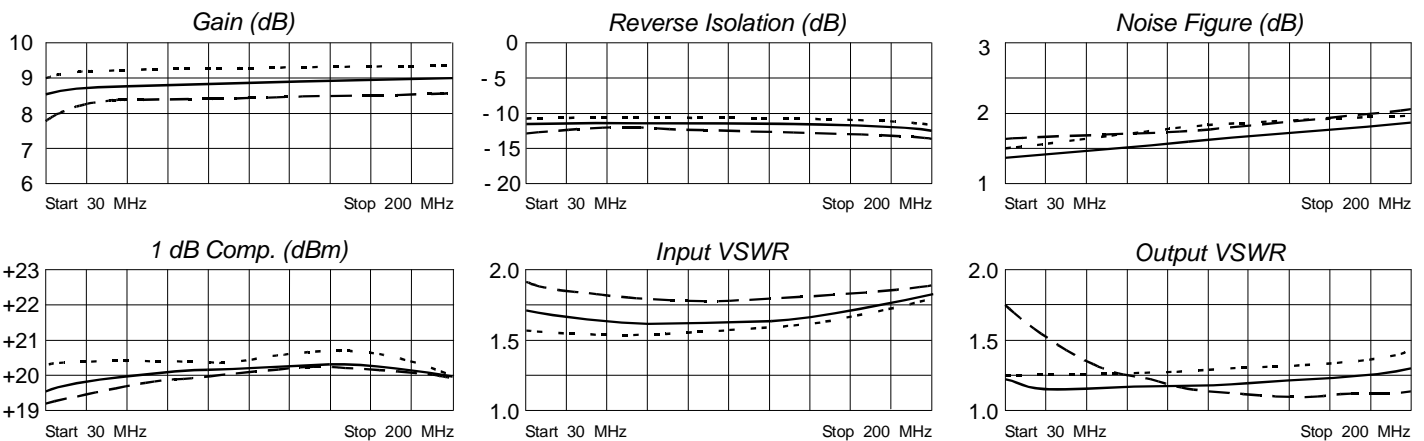
Ambient Operating Temperature ..... -55°C to +100 °C  
 Storage Temperature ..... -62°C to +125 °C  
 Case Temperature ..... +125 °C  
 DC Voltage ..... +18 Volts  
 Continuous RF Input Power ..... +15 dBm  
 Short Term RF Input Power ..... 50 Milliwatts (1 Minute Max.)  
 Maximum Peak Power ..... 0.5 Watt (3 µsec Max.)

Revision 9/24/2012

### MTBF Calculation for Ground Benign Environment

@ 25 °C ..... 23,314,857 hrs

### Typical Performance Data



Legend ——— +25 °C    - - - - +85 °C    ······ -55 °C

### Linear S-Parameters

FREQ. MHz	S11		S21		S12		S22	
	Mag	Deg	Mag	Deg	Mag	Deg	Mag	Deg
20	.33	155	2.61	11	.24	12	.21	95
50	.28	165	2.71	- 1	.25	- 2	.08	60
100	.27	169	2.73	-14	.25	-14	.05	-25
150	.28	172	2.76	-24	.24	-23	.08	-74
200	.31	171	2.78	-34	.23	-33	.13	-96



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